

WHAT IS CLAIMED IS:

- ub B1
1. A metal shutter for use with a disc cartridge, comprising:
 a screen portion ^{having an inside and outside surface} which has on ^{the} an outside surface thereof an indication area, said indication area including a stamped rough surface part which is configured to constitute a given pattern, said screen portion being formed, on ^{the} an inside surface thereof at a portion corresponding to said indication area, with another stamped rough surface area.
 2. A metal shutter as claimed in Claim 1, in which said metal shutter is constructed of a metal plate having a thickness ranging from approximately 0.15 mm to approximately 0.5 mm.
 3. A metal shutter as claimed in Claim 2, in which said metal plate is an aluminum plate or a stainless steel metal.
 4. A metal shutter as claimed in Claim 1, in which the roughness of the stamped rough surface area on said inside surface of said screen portion is less than that of the stamped rough surface area on said outside surface of said screen portion.
 5. A metal shutter as claimed in Claim 1, in which said indication area further includes a non-rough surface part which is surrounded by said stamped rough surface part to allow said non-rough surface part to stand out against the stamped rough surface part.
 6. A metal shutter as claimed in Claim 1, in which said indication area further includes a non-rough surface part which is configured to surround said stamped rough surface part to allow said stamped rough surface part to stand out against the non-rough surface part.

131 7. A metal shutter as claimed in Claim 1, in which said indication area is provided on a flat projection formed on said screen portion.

5 8. A metal shutter for use with a disc cartridge, comprising:
larger and smaller rectangular screen portions which are connected through a thinner connecting portion thereby to have a generally U-shaped cross section, said smaller rectangular screen portion having an inside surface which faces an inside surface of
10 said larger rectangular screen portion and an outside surface which faces outside;

a first stamped rough outside surface part integral with said outside surface of said smaller rectangular screen portion;

15 a non-rough outside surface part integral with said outside surface of said smaller rectangular screen portion, said non-rough outside surface being surrounded by said first stamped rough outside surface part thereby to constitute a given pattern which stands out against said stamped rough outside surface part;

20 a first stamped rough inside surface part which is integral with said inside surface of said smaller rectangular screen portion at a position corresponding to said first stamped rough outside surface part;

25 a second stamped rough outside surface part integral with said outside surface of said smaller rectangular screen portion at a position remote from said first stamped rough outside surface part, said second stamped rough outside surface part being configured to form a given pattern; and

30 a second stamped rough inside surface part integral with said inside surface of said smaller rectangular screen portion at a position corresponding to said second stamped rough outside surface part.

9. A metal shutter as claimed in Claim 8, further comprising a third stamped rough inside surface part integral with said inside

090340310 041301

surface of said smaller rectangular screen portion at a position corresponding to said non-rough outside surface part.

10. A metal shutter as claimed in Claim 8, further comprising:
 5 a first inward projection integrally formed on a first portion of said inside surface of said smaller rectangular screen portion;
 and

10 a second inward projection integrally formed on a second portion of said inside surface of said smaller rectangular screen portion,

said first and second inward projections being in contact with an outer surface of a shell of said disc cartridge.

11. A method of producing a shutter for use with a disc
 15 cartridge, comprising the steps of:

preparing upper and lower stamping dies which have mutually contactable work faces;

supplying a metal plate material between said upper and lower stamping dies; and

20 stamping said metal plate material with said upper and lower stamping dies to produce, at the same time, on an outside surface thereof a first rough surface part and on an inside surface thereof a second rough surface part, said first rough surface part being configured to constitute a given pattern.

25 12. A device for producing a shutter for use with a disc cartridge, comprising:

upper and lower stamping dies between and by which a metal plate material for producing said shutter is stamped,
 30 a first rough surface defined by said upper stamping die, said first rough surface producing an indication area on an upper surface of said metal plate material upon stamping, said indication area including a stamped rough surface which is configured to constitute a given pattern; and

a second rough surface defined by said lower stamping die, said second rough surface producing a stamped rough surface part on a lower surface of said metal plate material at a position corresponding to said indication area upon stamping.

5

13. A device as claimed in Claim 12, further comprising a height adjusting device which adjusts a height of said lower stamping die.

10

14. A device as claimed in Claim 13, in which said height adjusting device comprises:

a sliding seat having a slanted upper surface to which a slanted lower surface of said lower stamping die slidably contacts; and

15

a drive unit for moving said sliding seat.

15. A disc cartridge comprising:

a disc as a recording medium;

a shell for rotatably receiving therein said disc;

20

an opening formed in said shell to expose an outer surface of said disc; and

a metal shutter slidably mounted on said shell to open and close said opening,

25

wherein said metal shutter is provided with a screen portion, said screen portion being formed, on an outside surface thereof, with an indication area, said indication area including a stamped rough surface part which is configured to constitute a given pattern; and

30

wherein said screen portion is formed, on an inside surface thereof at a portion corresponding to said indication area, with another stamped rough surface part.

ADD B1

B1